

in his *Bibliography of Australian Entomology, 1775-1930*, published by the Royal Zoological Society of New South Wales at Sydney, 1932 (pp. 48-49, 240). Clark's publications between 1930 and the time of his death, so far as known, are listed below.

1934. Notes on Australian ants, with descriptions of new species and a new genus. *Mem. Nat. Mus. Vict., Melbourne*, 8: 5-20, Pl. 1, 1 text-fig.
1934. New Australian ants. *Ibid.*, pp. 21-47, Pls. 2, 3.
1934. Ants from the Otway Ranges. *Ibid.*, pp. 48-73, Pl. 4.
1936. A revision of the Australian species of *Rhytidoponera* Mayr (Formicidae). *Ibid.*, No. 9, pp. 14-89, Pls. 3-6, text-figs. 1-4.
1938. The Sir Joseph Banks Islands. Reports of the McCoy Society for Field Investigation and Research. Part I. Formicidae (Hymenoptera). *Proc. R. Soc. Victoria (n.s.)*, 50: 356-382, 20 figs.
1941. Australian Formicidae. Notes and new species. *Mem. Nat. Mus. Vict., Melbourne*, 12: 71-94, Pl. 13.
1941. Notes on the Argentine ant and other exotic ants introduced into Australia. *Ibid.*, pp. 59-70, figs. 1-3.
1943. A revision of the genus *Promyrmecia* Emery (Formicidae). *Ibid.*, No. 13, pp. 83-149, Pls. 12-17, text-fig. 1.
1951. The Formicidae of Australia. Volume I. Subfamily Myrmeciinae. CSIRO, Melbourne. 230 pp., 193 figs.

W. L. BROWN, JR.,
Harvard University.

A New Species of *Anastoechus* Osten Sacken with Notes on the Congeners

By J. C. HALL, University of California Citrus Experiment
Station, Riverside, California

The following description is given at this time in order to facilitate the return of borrowed material and to make the name available for future publications

The genus *Anastoechus* was described by Osten Sacken in 1877 with a single species, *barbatus*. Tucker in 1907 described

melanohalteralis. These two species, up to the present time, were the only two representatives of the genus in North America. *A. barbatus* is the most widespread representative of the genus and it is very common in the western states.

Anastoechus can be easily separated from its nearest relative *Systoechus* by the extremely dense pile on the face and the obtuse distal end of the discal cell.

The three species in the genus *Anastoechus* may be separated by the following key:

1. Knob of halteres white or yellow. 2
 Knob of halteres black; wings brownish on at least the basal half. *melanohalteralis*
2. Abdominal segments five and six, sometimes seven, with black hair; a large species *deserticola*, n. sp.
 Abdominal segments five, six, and seven with a few black hairs mixed with the white, black hairs usually white basally, a smaller species. *barbatus*

Anastoechus deserticola n. sp.

The most easily recognized species within the genus, it differs from both *barbatus* and *melanohalteralis* by the broad band of black hairs on the distal segments of the abdomen, and by the larger size.

Female: Ground color black, apex of femora, all of tibia and tarsi yellowish-brown. Front gray cinereous, dense whitish pilose, long white tomentose, a few black hairs above antennae at sides, tomentum wanting medially between antennae and ocelli. Face densely covered with long, thick, white pile and tomentum. Proboscis projecting at least the length of the thorax beyond the oral opening. Occiput nearly entirely covered with white pile and tomentum, except on vertex where tomentum is wanting. Antennae black, first segment nearly four times longer than second, both with long, white hair; third segment about as long as basal two together, gradually and evenly tapering from moderately broad base to narrow, pointed apex, without pubescence. Thoracic dorsum and scutellum white pilose, without tomentum; bristles white; pleurae and coxae with snow-white pile and tomentum. Fore and middle femora with yellow scales on antero-dorsal surface, rest white

tomentose, white pile below; hind femora with yellow scales on antero-ventral surface, white scales elsewhere; tibiae with whitish-yellow scales overall, bristles yellow, except for a few black ones on apical half of hind tibia.

Wings hyaline, veins yellowish-brown; costal, basal part of marginal and first basal cell yellowish; widened base of costa with long black hair on anterior edge, white scales in middle and a narrow band of yellowish scales basally; first posterior cell closed and petiolate, anal cell broadly open. Halteres yellowish.

Abdomen with erect whitish hair, not dense, more or less confined to middle of segments; posterior margin of fourth segment with a single row of long bristle-like hair whose basal half is white, apical half black, and extreme tip white; fifth and sixth segments with a broad crossband of black hair, a few white hairs intermixed, bristle-like hair on posterior margins of fifth and sixth segments black except white tips; hair on segments five, six, seven directed backward forming a rosette around genital opening; segment seven orange with white pile; abdominal tomentum wanting except for a very few scales forming an obscure median line from segment two to segment four; venter black, posterior margins of all segments white, white pilose and tomentose, a few hairs near tip of abdomen with black tips. Length 10-12 mm.

Male: Nearly identical to female, but differing in the following ways in addition to the usual sexual differences: Tomentum of front wanting; black hair on front extending downward along eye margin to approximately middle of face. Bristles of hind tibia entirely yellowish. Abdomen with a larger number of black tipped hairs, a few being present at sides of second segment and increasing in extent posteriorly. Venter yellowish-brown, each segment with a broad, white posterior margin. Genitalia orange, harpagones with short, white hair.

Variations: The extent of variation in the specimens studied is very slight. The main variations are in the color of the wing infuscation, from yellow to brown, and in the number of black-tipped abdominal hairs anterior to the fifth segment.

Holotype female, Picacho Pass, Pinal Co., ARIZONA, 9-13-54 (J. C. Hall); *allotype* male, 10 mi. W. of Blythe, Riverside Co.,

California, 10-2-54 (J. C. Hall). Both in the California Academy of Science, San Francisco, California.

Paratypes, 1 ♂, same data as allotype; 2 ♂♂, S. Lancaster, Los Angeles Co., California, 9-46 (F. R. Cole); 1 ♀, Oro Grande, San Bernardino Co., California, 10-28-34 (P. H. Timberlake); 1 ♂, 10 mi. E. Tucson, Arizona, 9-24-47 (E. R. Tinkham), all in the Author's collection; 1 ♂, San Xavier, Arizona, 10-10-47 (E. R. Tinkham); 1 ♀, Trans-Pecos, Franklin Mts., Texas 10-8-46 (E. R. Tinkham), in the collection of E. R. Tinkham; 1 ♂, 9 mi. W. Blythe, Riverside Co., California, 10-2-54 (P. H. Timberlake), in the collection of P. H. Timberlake.

Anastoechus barbatus Osten Sacken

1877. Western Diptera. Bull. U. S. Geol. Geog. Survey of Terr. 3: 252.

A considerable amount of controversy exists in the literature as to whether or not this species is the same as the European *A. nitidulus* (Fab.). Coquillett, 1894, considered the two to be the same. Cresson, 1919, noticed that all the Old World species seen by him possessed tomentum on the abdominal dorsum; while very little if any tomentum exists on the abdomen of the North American specimens. I have not seen any of the European specimens, but from the available descriptions I am inclined to agree with other workers who have followed Cresson's findings in that the two, while similar, are distinct.

A. barbatus is found almost everywhere in the West. While nothing is known concerning the biology of this species, I have collected them many times in association with grasshoppers. It is believed that they are predaceous upon the egg pods.

Anastoechus melanohalteralis Tucker

1907. Some results of desultory collecting of insects in Kansas and Colorado. Kansas Univ. Sci. Bull. 4: 89.

This species, while not as common as *barbatus*, is widespread at least throughout California, Arizona, Nevada, Colorado, Utah, and New Mexico. The easiest character used for separating

this species from *barbatus* is the black halteres. The infuscated wings are subject to some variation and are therefore not too reliable for separation. The resemblance to *barbatus* is rather remarkable in both size and pilosity.

Nothing is known about the life history, but I can see no reason for not accusing this species of also being predaceous upon grasshopper egg pods.

Description of the Sugar Beet Root Maggot, *Tetanops myopaeformis* (von Röder), With Observations on Reproductive Capacity †

By W. L. GOJMERAC *

The sugar beet root maggot has been receiving considerable attention in North Dakota. This insect has been identified as *Tetanops myopaeformis* (von Röder), Family Ortalidae.**

According to published information the sugar beet root maggot has been previously associated with sugar beets grown under irrigation in several western states and Canadian provinces. Regulation of soil moisture supplemented with seed treatment has been a means of controlling this insect (1). Rather severe outbreaks of the sugar beet root maggot occurred in North Dakota during 1954 and 1955. Serious damage was also reported in several Canadian provinces during 1955. Controls under dryland conditions were studied in North Dakota during 1955 (2, 3).

This insect was originally named and described by von Röder in 1881 as *Eurycephala myopaeformis* from California (4). He placed it in the Subfamily Ulidiinae, Family Ortalidae. The genus was preoccupied so Hendel in 1907 proposed to change the name to *Eurycephalomyia* (5). Williston in his 1908 manual

† Approved for publication by the Director of the North Dakota Agricultural Experiment Station as a contribution from the Department of Entomology (Project BJ-5,44).

* Assistant Entomologist, North Dakota Agricultural Experiment Station, Fargo, North Dakota.

** By Insect Identification & Parasite Introduction Section, P. W. Oman, Head.